

CONFINED SPACE ENTRY



CONFINED SPACE STATISTICS

- 65% Of All Confined Space Fatalities Due To Hazardous Atmosphere
- In All Deaths Last Year (139), There Were No Detectors Nor Ventilation
- One-Third Of All Deaths Were Supervisors
- 60% Were Rescuers
- 25% Of Spaces Were Toxic Before Entry

IDENTIFICATION OF CONFINED SPACE

- Has Limited Opening(s) For Entry And Exit
- An Actual Or Potential Hazardous Atmosphere Exists
- Space Not Designed For Continuous Worker Occupancy
- Entry Is Determined As Soon As Plane Of Opening Is Broken

OSHA REQUIREMENTS

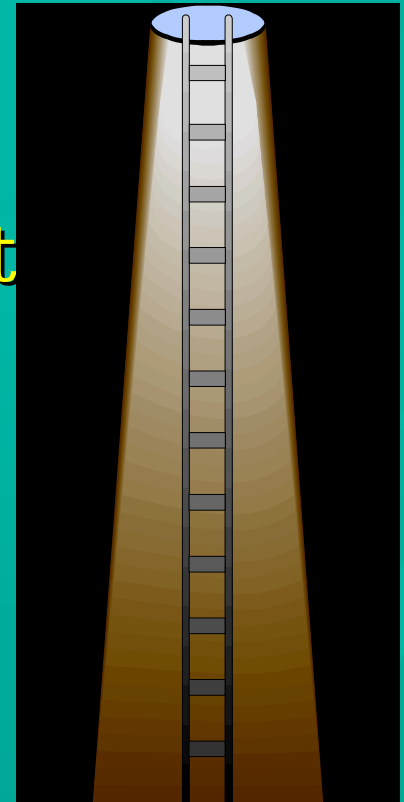
- Identify All Confined Spaces
- Treat All Confined Spaces As Hazardous Until Proven Otherwise
- If Possible, Identify All Hazards In Confined Space Before Entry
- Respond Appropriately To Hazards Before Entry

SOME CONFINED SPACES ON CAMPUS

- Elevator Shafts
- Boilers
- Pits
- Air Handling Units
- Small Mechanical Rooms
- Switch Closets
- Basements

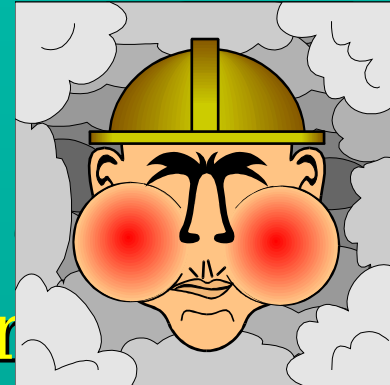
POTENTIAL HAZARDS

- Hazardous Atmospheres
 - Toxic Gases
 - Flammable Gases
 - Oxygen Rich Or Deficient
- Physical Hazards
 - Slips, Trips, Or Falls
 - Electrical
 - Gravity Based
- Chemical Contact Hazards



HAZARDOUS ATMOSPHERES

- Oxygen Rich (Greater Than 23.5%)
- Oxygen Deficient (Less Than 19.5%)
- Toxic
- Flammable
- Corrosive
- Other Gas Displacement



ATMOSPHERIC TESTING

- Assume All Confined Space Requires An Entry Permit Until Testing Is Done. Test Types Are:
 - 1. Evaluative
 - 2. Verification
 - 3. Duration
 - 4. Stratified
 - 5. Periodic And Continuous

ORDER OF TESTING

- First---Oxygen Presence And Amounts
- Second---Flammables
- Third---Toxics
- Others



PHYSICAL HAZARDS

- Potential For Engulfing
- Hot Work
- Sides/Walls So Configured That Exit Is Prevented (Sloping, Covered, High, Etc.)
- Airborne Dusts Or Other Substances
- Electrical Hazards
- Poor Housekeeping

CONFINED SPACE PROGRAM REQUIREMENTS

- Written Program
- Hazard Identification Procedures
- Hazard Abatement And Control
- Permit System
- Employee Training
- Proper Equipment
- Adequate Rescue Plan
- Procedure For Working With Contractors

CONFINED SPACE ENTRY

- Survey Workplace For Confined Space
- Test Confined Space To Determine If Permit Or Non-Permit Confined Space
- Isolate Confined Space From Other Employees And Non-Employees
- Perform All Activities According To Written Plan

NON-PERMIT ENTRY

- No Hazards -- Or
- Ventilate Actual Or Potential Hazards
- Correct Hazard Source
- Written Supervisor Approval For Re-
Entry After Hazard Correction

PERMIT REQUIRED ENTRY

Written Plan (Permit) Required

- Isolate Internal And External Area
- Hazard Identification And Evaluation
- Prevention Of Unauthorized Entry
- Develop And Implement Safe Entry Process
- Conditions (Must Include Continuous Testing And Safe Work Conditions)
- Identify Any Needed Equipment
 - > Continued

PERMIT REQUIRED ENTRY

Written Plan (Permit) Required

- Describe Barricades/Barriers Needed To Protect Pedestrians & Others
- Describe Rescue & Emergency Procedures
- Describe Procedure For Preparation, Issuing, & Cancellation Of The Confined Space Entry Permit
- Describe Coordinated Entry Operations
- Review & Revise At Least Annually

EQUIPMENT REQUIRED

- Testing And Monitoring
- Ventilating
- Communications
- Lighting, Barriers, And Shields
- Safe Ingress And Egress
- Rescue And Emergency
- PPE
- Specific Equipment Needed

EXTERNAL CONTRACTOR

- Must Comply With College's Regulations
- Entry Supervisor To Share Information
- Entry Supervisor Must Coordinate Entry With Contractor
- Contractor To Inform Supervisor Of Any Hazard Confronted Or Created In Permitted Space

WRITTEN PROGRAM MUST ADDRESS

- Unauthorized Entry Measures
- How To Identify And Evaluate Permit Space Hazards
- Means, Procedures, And Practices Needed For Safe Entry
- Rescue And Emergency Operations
- Coordinated Entry
- Review And Revise At Least Annually

CONFINED SPACE PERMIT MUST CONTAIN

- Specific Space To Be Entered
- Purpose Of Entry
- Date And Length Of Time Of Entry
- Authorized Entrant, Authorized Attendant, and Entry Supervisor
- Actual Hazards And Potential Hazards
 - > Continued

CONFINED SPACE PERMIT MUST CONTAIN

- Measures Used To Isolate Space Results
- Communications Procedures
- Equipment Needed
- Acceptable Entry Conditions
- Initial And Periodic Test Results
- Rescue And Emergency Means
- Any Permits